19 March 1975

A Review of

Chu-Yuan Cheng, China's Allocation of Fixed Capital Investment, 1952-1957

Professor Chu-Yuan Cheng's monograph is focused specifically on the structure of investment in the People's Republic of China. Because the detailed data needed for this type of analysis are not available for later years, it is restricted to the First Five-Year Plan period. The study is divided into four parts. The first part describes the official statistics on capital investment, reviews two earlier studies by Dr. Kung-Chia Yeh and Professor Kang Chao, and presents revised estimates of fixed capital investment. The second part presents the broad sectoral allocation of fixed investment, compares the allocation with that of other countries and examines the sectoral capital-output ratios. The third and fourth sections deal in greater detail with allocation of investment within the nonagricultural and agricultural sectors, respectively.

The revised estimate of fixed investment that Cheng presents is a minor modification of Chao's work. Chao makes estimates by the commodity flow method for the following components of fixed investment: (1) construction and installation, (2) domestic production of machinery and equipment,

(3) net imports of machinery and equipment, (4) office furniture and tools, and (5) other rural investment. Cheng accepts Chao's methodology and all of his estimates except that for domestic production of machinery and equipment.

Cheng's estimate for machinery and equipment differs from Chao's in two respects. First, Cheng includes a separate estimate for machinery and equipment produced by handicrafts. Individual handicraftsmen and handicraft cooperatives did produce small quantities of capital goods, especially in the rural areas. In the category of other rural investment, however, both Chao and Cheng include 474 million yuan for investment in old-type farm implements. Since most of the output of handicraft producer durables must fall into this category, the explicit inclusion of handicraft production introduces an element of double counting into the estimate.

Second, Cheng's estimate for major repair of machinery and equipment is slightly higher than Chao's. Both Chao and Cheng estimate repair of machinery and equipment to be 30 percent of total repair, but Chao accepts a total derived by K. C. Yeh whereas Cheng uses a slightly higher figure derived by Shigeru Ishikawa. The two sets of estimates for machinery and equipment in 1956 (in million 1952 yuan) are as follows:

	Chao	Cheng
Machinery produced by modern industry	2,915	2,915
Machinery produced by handicrafts	---	175
Major repair	252	280
Total	3,167	3,370

The difference between them is small, and most of the increment added by Cheng is double counted.

Two points should be noted. First, Cheng uses an estimate for the production of machinery and equipment from Chao's study and thus accepts without comment a substantial revision of his own index of machine building. Second, Cheng makes a particular point of the fact that Chao's estimate for the share of producer durables in total fixed capital (26 percent) is low in comparison with Professor Kuznets' figures for other low-income countries (38 percent), yet his own estimate (27 percent) is only one percentage point higher than Chao's. Both Chao and Cheng understate the share of producer durables because they undervalue the production of the machine-building industry. This undervaluation stems from Cheng's earlier attempt to separate the value of military machine building from the total.

A knowledge of the structure as well as of the level of capital formation is important for understanding the

growth of an economy. As Cheng himself points out in the introduction to his monograph, however, no single study of capital formation in China is commonly accepted. Additional research will be required before the differences between the presently available estimates can be resolved.

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